Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-25. (Canceled)

26. (Previously Presented) A method of detecting a genetically transmitted deficiency in immune cell function in a mammal, wherein the deficiency in immune cell function results from a mutation in a glycosyltransferase gene, the method comprising:

a) providing a sample from a mammal, wherein the sample comprises a plurality of glycoconjugates;

b) contacting the sample with at least one of:

a first type of diagnostic reagent that binds to a first glycoconjugate that has an oligosaccharide determinant that: i) is present on glycoconjugates in a sample obtained from a mammal that has the deficiency in immune cell function resulting from a mutation in a glycosyltransferase gene, and ii) is absent or is present at reduced levels on glycoconjugates in a sample obtained from a mammal that does not have the deficiency in immune cell function resulting from a mutation in a glycosyltransferase gene; and

a second type of diagnostic reagent that binds to a second glycoconjugate that has an oligosaccharide determinant that: i) is present on glycoconjugates in a sample obtained from a mammal that does not have the deficiency in immune cell function resulting from a mutation in a glycosyltransferase gene, and ii) is absent or is present at reduced levels on glycoconjugates in a sample obtained from a mammal that has the deficiency in immune cell function resulting from a mutation in a glycosyltransferase gene; and

c) determining whether the diagnostic reagent binds to the glycoconjugates in the sample, wherein the binding of a diagnostic reagent of the first type, or the absence or

reduced binding of a diagnostic reagent of the second type, is indicative of the presence of the deficiency in immune cell function resulting from a mutation in a glycosyltransferase gene in the mammal.

27-34. (Canceled)

35. (Previously presented) The method of claim 26, wherein the deficiency in immune cell function is a deficiency in myeloid cell function.

36. (Previously presented) The method of claim 35, wherein the presence of the deficiency in immune cell function is associated with reduced binding to a second type of diagnostic reagent which specifically binds to Core 2 type O-glycans.

37. (Previously presented) The method of claim 36, wherein the diagnostic reagent comprises an antibody that specifically binds to an immune cell surface protein selected from the group consisting of a CD45 isoform and a CD43 glycoform.

38-51. (Canceled)

52. (Previously presented) The method of claim 35, wherein the deficiency in myeloid cell function is reduced neutrophil recruitment to sites of inflammation.

53. (Previously presented) The method of claim 26, wherein the plurality of glycoconjugates are on a cell.

54. (Previously presented) The method of claim 53, wherein the plurality of glycoconjugates are on an immune cell.

55. (Previously presented) The method of claim 54, wherein the immune cell is a lymphocyte.

56. (Previously presented) The method of claim 54, wherein the immune cell is a CD43+ myeloid cell.

57. (Previously presented) A method of diagnosing a deficiency in an inflammatory response resulting from a deficiency in core 2 GlcNAc transferase activity in a mammal, the method comprising detecting a Core 2 type O-glycan moiety on an immune cell from a sample of the mammal, wherein a deficiency in an inflammatory response is indicated by detecting a reduced presence of the Core 2 type O-glycan moiety on the immune cell in comparison to a sample from a mammal without a deficiency in an inflammatory response resulting from a deficiency in core 2 GlcNAc transferase activity.

58. (Previously Presented) The method of claim 57, wherein the reduced presence of the Core 2 type O-glycan moiety on the immune cell is detected using one or more antibodies that specifically bind to an immune cell surface protein selected from the group consisting of a CD45 isoform and a CD43 glycoform.

59. (Previously Presented) The method of claim 26, wherein the deficiency in immune cell function is a deficiency in B lymphocyte function.

60. (Previously Presented) The method of claim 59, wherein the presence of the deficiency in B lymphocyte function is associated with reduced binding to a diagnostic reagent which specifically binds to Sia6LacNAc.

61. (Previously Presented) The method of claim 60, wherein the diagnostic reagent comprises a lectin selected from the group consisting of CD22 and Sambucus nigra bark agglutinin (SNA).

62. (Previously Presented) The method of claim 60, wherein the diagnostic reagent comprises a CD22-Ig.

63. (Withdrawn) The method of claim 26, wherein the deficiency in immune cell function is a deficiency in cytotoxic T lymphocyte function.

64. (Withdrawn) The method of claim 63, wherein the presence of the deficiency in cytotoxic T lymphocyte function is associated with reduced binding to a diagnostic reagent which specifically binds to an α2-3-linked sialic acid.

65. (Withdrawn) The method of claim 64, wherein the diagnostic reagent comprises Maackia amurensis II lectin (MAL II).

66. (Withdrawn) The method of claim 63, wherein the presence of the deficiency in cytotoxic T lymphocyte function is associated with increased binding of a detection reagent which specifically binds to Galβ1-3GalNAc but does not bind to Siaα2-3Galβ1-3GalNAc.

67. (Withdrawn) The method of claim 66, wherein the diagnostic reagent comprises peanut agglutinin (PNA) lectin or Jacalin.

68. (Previously presented) The method of claim 26, wherein the first diagnostic reagent or the second diagnostic reagent bind to a glycoconjugate on a cell.

69. (Previously presented) The method of claim 26, wherein the first diagnostic reagent or the second diagnostic reagent bind to a glycoconjugate on an immune cell.